

Release Notes

HP Integrity Superdome Server for Microsoft® Windows® Server 2003



Manufacturing Part Number: 5990-8258

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Release Notes

Using the Intel® Itanium® 2 processor or the HP mx2 dual-processor modules and the HP Super-Scalable Processor Chipset sx1000, **HP Integrity Superdome servers** running Microsoft® Windows® Server 2003 Datacenter Edition with SP1 for Itanium-based Systems deliver exceptional performance and flexibility. The HP Integrity Superdome server supports Windows Server 2003, 64-bit, SP1 in the following configuration:

- 2-64 Itanium 2 processors with the HP mx2 dual processor module in one cabinet or 2-64 Itanium 2 processors in two cabinets
- 1 TB memory capacity
- Up to 8 hardware partitions (nPartitions) per cabinet
- 96 Hot-plug PCI-X slots (Up to 192 slots with I\O Expansion Cabinets)

What's New in Smart Setup 3.30

This release supports **Service Pack 1(SP1)** for Microsoft Windows Server 2003, 64-bit, and provides critical updates to the following components:

System Management Homepage(SMH) version 2.0.0.104

Includes a bug fix that corrects the display of the Complex Event Viewer page.

Pay per use(PPU) version 7.1

Includes changes to the packaging and installation of PPU in addition to updates that enable compatibility with SP1. Previously, PPU was included with the WMI nPar Provider component, and visible only as a subcomponent of the nPar Provider. With this release, PPU is a separate component with its own installation process. After a successful installation, PPU is listed separately among currently installed programs under **Add or Remove Programs**. This version of PPU is compatible with SP1.

U320 SCSI driver version 1.10.5.1

Updates the driver for the U320 SCSI Host Bus Adapter.

NOTE

The Smart Setup CD does not contain SP1. HP provides a separate Datacenter Update DVD to existing customers running Microsoft Windows Server 2003, Datacenter Edition, on HP Integrity servers. Microsoft provides SP1 at the Microsoft download web site and on the Windows Server 2003 OS with SP1 retail media.

Software Requirements

In addition to the software included from HP, the following software is required.

Java

- Partition Manager requires JDK (32-bit) 1.4.1 or 1.4.2 available from the Sun Microsystems download site: <http://java.sun.com>
- Integrity Management Agents require JRE 1.4.1 or 1.4.2 available from the Sun Microsystems download site: <http://java.com>

Web Browser

RMU, the browser-based interface to the Smart Setup CD, requires Internet Explorer version 5.0 or higher. The latest version of Internet Explorer is available from the Microsoft download site: <http://www.microsoft.com/windows/ie/default.mspx>

TCP/IP and SNMP

HP Insight Management Agents require installation and configuration of TCP/IP and SNMP. SNMP installation must be done manually.

Utility Meter

Pay Per Use (PPU) 7.1 software requires Utility Meter software version 7.3 or higher.

Supported components

HP Integrity Superdome Server for Microsoft® Windows® Server 2003 supports the following components:

Operating System	<ul style="list-style-type: none"> Windows Server 2003, Datacenter Edition with SP1 for Itanium-based Systems
LAN Adapter	<ul style="list-style-type: none"> HP PCI 1000Base-T Gigabit Ethernet Adapter for Windows V. 7.86 (A7061A) HP PCI 1000Base-SX Gigabit Ethernet Adapter for Windows V. 7.86 (A7073A) HP PCI-X Dual Port Gigabit Ethernet SX adapter card V. 7.2.17.8 (A9899A) HP PCI-X Dual Port Gigabit Ethernet TX adapter card V. 7.2.17.8 (A9900A)
SCSI Adapter	<ul style="list-style-type: none"> HP PCI Single Channel Ultra160 SCSI Adapter for Windows (A7059A) HP PCI Dual Channel Ultra160 SCSI Adapter for Windows (A7060A) HP PCI-X Dual Channel Ultra320 SCSI Host Bus Adapter (A7173A)
Fibre Channel Adapter	<ul style="list-style-type: none"> HP StorageWorks 2 Gb Fibre Channel HBA (AB232A) HP StorageWorks 2 Gb, 64-Bit/133 MHz PCI-X-to-Fibre Dual Channel HBA (AB466A) HP StorageWorks 2 Gb, 64-Bit/133 MHz PCI-X-to-Fibre Single Channel HBA (AB467A)
RAID Controller	<ul style="list-style-type: none"> HP PCI-X 2-channel Smart Array 6402, Ultra320 SCSI (A9890A)
VGA Graphics	<ul style="list-style-type: none"> HP Graphics/USB card (A6869A in the I/O chassis attached to the root cell only)
Keyboard	<ul style="list-style-type: none"> Only HP keyboards are supported.

Troubleshooting common issues

Please read this section completely before installing or running Windows Server 2003 on HP Integrity servers. This section includes workarounds that may save you valuable time and effort.

Array Configuration Utility (ACU)

all Integrity servers

ACU cannot be used when Windows Driver Verifier (verifier.exe) is running in the background

Issue ACU reports incorrect results when the Windows Driver Verifier is enabled and running in the background.

Workaround There is no workaround at this time. If you want to run the ACU, you must first end the “verifier.exe” process using the Windows Task Manager, then launch ACU. Do not run both simultaneously.

Fibre Channel

all Integrity servers

LPutil64 DELETE button does not delete the selected EFI driver or firmware

Issue The LPutil64 **Delete** button does not work with the A7298A, AB232A, AB466A, or the AB467A adapters.

Workaround Disable the desired EFI driver using LPutil64's **Enable/Disable** button instead. Another solution is to simply flash to a newer version of the EFI driver, which will overwrite the existing version.

Installation

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Blank screen during system startup

Issue During system startup the screen may remain blank for 3 to 8 minutes (actual time depends on the quantity of the installed system memory).

Workaround This is normal. The system activity can be monitored within a few seconds of system power-on via a remote terminal.

all Integrity servers

Do not use the 16GB option when installing the OS from the re-install media

Issue If you use the 16 GB option during installation of the OS from re-install media, you cannot create a kernel memory dump (in the event of a system failure) unless the page file size is manually configured afterward. In addition, even with manual configuration the page file size will still be less than the recommended 20 GB.

Workaround The system partition must be created on a 33 GB or larger disk drive. When using re-install media, choose either the 33 GB or max drive size option when configuring the system volume.

all Integrity servers**Use Esc8 instead of F8 key on a headless server**

Issue The Telnet and Hyperterminal applications on Windows NT4 and Windows 2000 do not correctly map the ASCII string for the function keys. For example, during Power On Self Test (POST) the Smart Array firmware will display a banner and configuration menu with instructions to press the **Esc** key to continue or the **F8** key to enter the configuration utility. When running the system in a headless configuration, pressing **F8** does not display the configuration menu.

Workaround To transmit the correct ASCII string using these applications from a remote terminal, press the **Esc** key immediately followed (within 1 second) by the numeric value of the desired function key. For example, to send the ASCII string for **F8**, press the **Esc** key immediately followed by pressing the **8** key (if the terminal emulator is set to UTF-8, then you can press the **F8** key instead). An easier solution to both problems is to simply use PuTTY instead of Telnet or Hyperterminal. PuTTY is a terminal emulator available on your Smart Setup media.

Superdome**Link to Management Processor (MP) on System Management Homepage (SMH) inoperable**

Issue On the System Management Homepage, the URL link to the MP, shown in the left pane under the heading “Management Processor”, does not work for HP Integrity Superdome servers. This is due to a lack of hardware support for the SMH web-based interface. Clicking on the link causes a new browser window to display along with the message: “Page cannot be displayed”.

For all other HP Integrity servers, the link works as intended.

Workaround There is no workaround at this time.

Management Agents**all Integrity servers****New Insight Agents smart component does not detect older versions**

Issue Insight Management Agents for Integrity servers version 3.0 does not indicate that it is overwriting an older version (2.4, 2.3, and so on) of the Agents. The newer smart component does not detect the older component.

Workaround No work around is necessary because there is no impact on functionality. No user action is needed.

all Integrity servers**The smart component for management agents displays an “installation failed” message during an upgrade if the old version is identical to the new version.**

Issue The Insight Management Agents smart component on Smart Setup 3.30 and Smart Setup 3.20 are identical. If you try to install the 3.30 version on a system where the 3.20 version is already installed, the smart component displays a generic “installation failed” message. This message should indicate that installation is not needed because the new version is identical to the old version.

Workaround This has no impact on functionality. No user action is needed.

Network Interface Cards (NICs)

all Integrity servers

Warning message about Fiber Gigabit Ethernet disconnect at system power-up (Event ID 4 or Event ID 27)

Issue At system power-up, you may see a Warning message (with a source of b57nd or e1000) indicating a disconnect. With the A7073A card, Event ID 4 is specified, and with the A9899A card, Event ID 27.

Workaround This is *not* an error, but rather a side-effect of the auto-negotiation process used by the A7073A and A9899A cards. The cards *do* connect at the end of that process. You can verify this by going into the Event Viewer, locating the Warning message, and seeing the Informational message that follows it, indicating a successful connection (Information Event ID 11 for the A7073A card; Information Event ID 32 for the A9899A card).

Partition Manager

Superdome, rx8620, rx7620

Microsoft Visual C++ Runtime Library error message dialog during system shutdown

Issue During shutdown, systems running Partition Manager may display a dialog on the local console indicating a Visual C++ Runtime error.

Workaround This is a program error in the System Management Homepage that has no operational impact. No user action is needed.

Pay Per Use (PPU)

Superdome, rx8620, rx7620

Troubleshooting instructions missing in Pay Per Use User Guide

Issue The PPU User Guide includes a section on Troubleshooting that should have included certain instructions about tracking down PPU-related problems on Windows Servers.

Workaround When troubleshooting PPU issues, you must check the Event Viewer for any error messages related to the Pay Per Use software. To open the Event Viewer, select **Programs > Administrative Tools > Event Viewer** from the Windows desktop. In the Event Viewer, select **Application** and then search the Source column for any PPU errors.

SCSI

all Integrity servers

Event ID 117 in Windows event log when using an embedded U320 SCSI controller as external disk drive controller

Issue When running Microsoft Windows Server 2003 on an HP Integrity server with an embedded U320 SCSI controller as the external disk drive controller, intermittent Event ID 117 entries may be generated in the Windows Event Log after rebooting.

Workaround Ignore these events. They represent a timeout condition that does not cause any system problems or data loss.

Service Pack 1 (SP1)

all Integrity servers

Windows Firewall blocks network access after SP1 installation

Issue

As a part of the security enhancements introduced in SP1, Windows Firewall is turned on by default after SP1 completes installation. The firewall blocks all TCP and UDP communication by default. As a result, several services such as SNMP and Remote Desktop Protocol are unable to establish connections.

Workaround

After SP1 installs, use the Security Configuration Wizard or configure the Windows Firewall in compliance with your site's security policy. You may need to specify certain services as exceptions in order to restore connections. For more information, refer to the Microsoft documentation and online help on Windows Firewall.

Smart Array

all Integrity servers

Smart Array 640x/530x generates errors in system event log (Event ID 9)

Issue

Under extremely heavy I/O conditions the Smart Array driver (cpqciissm) may generate Event ID 9 errors in the system event log.

Workaround

Ignore these events, as they do not cause any problems or loss of data. There is no fix at this time.

all Integrity servers

Smart Array 6402 as internal disk drive controller generates errors in system event log (Event ID 9 and Event ID 117)

Issue

When running the Smart Array 6402 as the internal disk drive controller, intermittent Event ID 9 and Event ID 117 entries may be generated in the Windows Event Log after a reboot.

Workaround

Ignore these events, as they do not cause any problems or loss of data. There is no fix at this time.

all Integrity servers

Storage Works 43xx enclosures in a split bus configuration with a single power supply may cause errors

Issue

Storage Works 43xx enclosures in a dual bus configuration with an Ultra3 Dual Bus I/O Module and a single power supply may report errors and fail the logical volumes when attached to Smart Array Controllers. Port A of the Storage Works 44xx enclosure may intermittently report that all drives installed in the lower bays (Port A, bays 1-7) have been hot-plug replaced even though the drives have not been replaced. As a result, the array controller may fail the logical volumes, causing the data to become inaccessible.

If the operating system is running from those drives, the server may hang or display a blue screen. When the server is rebooted, the drives appear to be working properly; however, some data may be inaccessible. A Power-On Self-Test (POST) error message is not displayed. The problem occurs regardless of the position of the power supply or fans in the enclosure. This affects any StorageWorks Enclosure Model 4314R, Model 4314T, or Model 4354R in a dual bus configuration with an Ultra3 Dual Bus I/O Module and a single power supply, attached to either Smart Array 5302 or Smart Array 5304 Controller.

all Integrity servers	Workaround	Operate the StorageWorks enclosures with a minimum of two power supplies.
	Issue	Inability to access the “Smart-Array Option ROM Configuration for Arrays Utility” menu of the Smart Array controller in the root cell I/O chassis (core I/O chassis) when the F8 key is pressed on the USB keyboard during system boot. NOTE: This problem only occurs if you are configuring the Smart Array using the USB keyboard connected to the HP Graphics and USB card. The serial console from the MP should work fine.
	Workaround	Do the following: <ol style="list-style-type: none">1. Boot the system to the EFI shell.2. At the EFI prompt, enter the following: <code>search <core cell></code>. For example, enter <code>search 0</code> if the core cell is 0.3. When you see the Smart-Array Option ROM Configuration for Arrays Utility menu, press the F8 key on the USB keyboard.4. Now you should see the Smart-Array Option ROM Configuration for Arrays Utility menu.
Superdome, rx8620, rx7620	Smart Array 640x/530x may not automatically load during system boot	Issue During system boot, Smart Array 640x or 530x cards may not load for RAID configuration. Workaround The system scans only for embedded devices. The Smart Array Option ROM has to be loaded manually the first time. This can be done at the EFI shell by executing a <code>search all</code> command. The user needs to use <code>search x y</code> command (for example, <code>search 0 8</code>), where x is the cell number and y is the PCI slot number.

System Management Homepage (SMH)

all Integrity servers

System Management Homepage fails to open

Issue If Internet Explorer is configured to browse through a proxy server and you forget to select the “Bypass proxy server for local addresses” checkbox, attempting to connect to the local SMH (<https://localhost:2381>) fails with a “page cannot be displayed” error.

Workaround Configure Internet Explorer to bypass the proxy server for local addresses:

1. In IE, click **Tools > Internet Options**.
2. Click the **Connections** tab.
3. Click the **LAN Settings** button.
4. Under “Proxy Server”, select the **Bypass proxy server for local addresses** checkbox.

Another solution is to simply change the SMH shortcut (the icon on the desktop) so that it points to <https://127.0.0.1:2381> instead of <https://localhost:2381>.

all Integrity servers

System Management Homepage may log errors to the Windows application event log

Issue If SMH is frequently installed and then uninstalled, or if the SMH service is frequently stopped and then started again, the following error can be logged to the Windows application event log:
 Faulting application smhstart.exe, version 2.0.0.103, faulting module unknown, version 0.0.0.0, fault address 0x00000000.

Workaround This message does not affect SMH operation. The application should still work normally. In the unlikely event of program termination, uninstall SMH, remove the C:\hp\hpsmh directory, and reinstall SMH.

Version Control

all Integrity servers

Version Control Repository Manager (VCRM) does not start after System Management Homepage (SMH) reinstallation

Issue VCRM fails to start if SMH is uninstalled, the system rebooted, and then SMH is reinstalled. This problem occurs only when the system is rebooted between the SMH install and reinstall.

Workaround Reinstall VCRM after reinstalling SMH.

all Integrity servers

Version Control Repository Manager (VCRM) does not upload the Japanese Support Pack from Japanese OS

Issue VCRM uploads the English Support Pack instead of the Japanese Support Pack when used on a Japanese OS.

Workaround Before uploading the Support Pack on a Japanese OS, change the browser's language setting to "en" or "en-us", upload the Japanese Support Pack, and then switch the browser's language setting back to Japanese.

Re-installing Windows Server 2003

Servers with the factory-installed operating system are shipped with the HP Re-installation media, which allows you to restore your server to the factory configuration if needed. The following sections provide instructions on installing the Windows Server 2003 on the HP Integrity server using the HP Re-installation media.

From a local console

Re-installing Microsoft Windows Server 2003 from a local console involves copying the operating system image from the Re-Installation media to the disk and setting up the system. The following sections provide brief instructions, aimed at expert system administrators, on getting the server up and running quickly. For detailed instructions, refer to the *Smart Setup Guide*.

Load the operating system

To re-install Windows Server 2003 on the server from a local console:

Step 1. Disconnect all mass storage devices from all controllers except the boot controller. Make a note of where the other devices were connected so you can reconnect them after installation completes.

WARNING

The system installs to the boot controller detected as adapter zero drive zero. If you do not disconnect all other drives, the system may install to an unintended drive.

Step 2. Configure the boot controller and drive. If you are using a RAID controller, prepare the controller and select the RAID type according to instructions in the RAID controller documentation.

Step 3. Because Windows Server 2003 with SP1 cannot create a boot entry if one already exists you must delete the existing boot entry. To delete the boot entry:

1. Select **EFI Boot Manager Menu >Boot Option Maintenance Menu > Delete Boot Option(s)**
2. Select a Windows Server 2003 boot entry to delete and press **Enter**.

Step 4. Insert the *HP Re-Installation media* in the DVD drive.

Step 5. From the EFI boot manager, select **Internal Bootable DVD**, if present.

If this entry is absent:

1. Select **EFI Shell**.
2. In the EFI Shell, select the DVD file system.
For example, if the DVD file system is **fs1**, type **fs1:**
3. Start the boot loader by typing **setupldr**

Step 6. Click **Re-Install**.

Step 7. Select the partition size and click **OK** to continue.

NOTE	The installation process copies files to the hard disk. It may display 99% complete for a long time. Do not power off the server.
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Step 8. When the installation process displays a dialog box, click **OK** to continue.

Step 9. Click **Exit**. The server reboots to the Windows Server 2003 operating system.

Step 10. Enable remote access:

a. Configure the IP address for the MP port from the local connection at the rear of the system. Use a null modem serial cable connection to a terminal emulator. The default settings are 9600, 8, none, 1, xoff/xon.

b. Verify that the IPMI LAN ACCESS is enabled.

Step 11. For maximum performance, HP recommends setting the memory to maximum Cell Local Memory (CLM) mode using the Par Commands Wizard or Par Commands. Refer to the *nPartition Guide* for detailed instructions.

If your partitions are already created, you can use Parstatus to check how memory is set. For example:

```
Parstatus -p2 -V -g passwd -h myserver
```

Specify system settings

To set up Windows Server 2003 after initial boot from the local console:

Step 1. Verify that the ACPI configuration is set to Windows.

1. From the EFI Shell, type **ACPICONFIG**.

If the ACPI configuration is set correctly, this command displays: **acpiconfig** settings: **windows**.

2. If the ACPI configuration setting is incorrect, type the following command:

```
ACPICONFIG WINDOWS
```

3. Reset the server.

Step 2. Power on the server. Windows displays a pop-up screen indicating that an EMS channel (headless server MP port) is present. It may take 2 to 15 minutes for the mouse and keyboard to start operating in this mode.

Step 3. When prompted to enter setup information at the local console, click **OK**.

Step 4. Enter the following setup information using the Windows Setup Wizard.

1. In the *License Agreement* window, click **Accept** and then **Next**.

2. In the *Regional and Language Options* window, click **Next**.

3. In the *Your Product Key* window, enter the product key.
The product key is located on the label attached to the server.

4. In the *Licensing Modes* window, select the license you purchased.

5. In the *Administrator Password* window, enter the server name and a password.

6. In the *Date and Time* window, select the appropriate timezone, and click **Next**.

The server reboots to the EFI Boot Manager and then boots up Windows Server 2003. You can now log in to the server using the administrator password you selected.

From a remote console

Re-installing Microsoft Windows Server 2003 from a remote console involves copying the operating system image from the Re-Installation media to the disk and setting up the system. The following sections provide brief instructions, aimed at expert system administrators, on getting the server up and running quickly. For detailed instructions, refer to the *Smart Setup Guide*.

Load the operating system

To install the Windows Server 2003 operating system on the server from a remote console:

Step 1. Connect to the target system partition with the terminal emulator.

NOTE

On Windows XP, the Terminal Services client is available under **Accessories > Communications**. On Windows 2000, you must install the Terminal Services client before you can use it.

Step 2. Because Windows Server 2003 with SP1 cannot create a boot entry if one already exists you must delete the existing boot entry. To delete the boot entry:

1. Select **EFI Boot Manager Menu >Boot Option Maintenance Menu > Delete Boot Option(s)**
2. Select a Windows Server 2003 boot entry to delete and press **Enter**.

Step 3. From the EFI boot manager, select **Internal Bootable DVD**, if present.

If this entry is absent:

1. Select **EFI Shell**.
2. In the EFI Shell, select the DVD file system.
For example, if the DVD file system is **fs1**, type **fs1**:
3. Start the boot loader by typing **setupldr**

Step 4. At the **SAC>** prompt, type **cmd**.

Step 5. Switch to the new command prompt channel by pressing **Esc+Tab**.

Step 6. Invoke the installation menu by typing **txtrestore**.

Step 7. Select the partition size and click **OK** to continue.

NOTE

The installation process copies files to the hard disk. It may display 99% complete for a long time. Do not power off the server.

Step 8. When the installation process completes, the main console or VGA display shows a screen indicating that the EMS was detected. When prompted to use the local console, do *not* click **OK**.

Step 9. Return to the remote console and perform system setup as indicated in the following section.

Specify system settings

To set up Windows Server 2003 after initial boot from a remote console:

Step 1. At the **SAC>** prompt, switch to channel one by pressing **Esc+Tab**. The system displays the following screen:

```
*****
Name:          Unattended Setup Channel
Description:   Provide parameters to automate Setup
Type:          VT-UTF8
Channel GUID: 0cf0ee2-3a27-11d7-8484-806e6f6e6963
Application Type GUID: 00000000-0000-0000-0000-000000000000
Press <esc><tab> for next channel.
Press <esc><tab>0 to return to the SAC channel.
Use any other key to view this channel.
*****
```

Step 2. Press any key and then press **Page Down**.

Step 3. Accept the license agreement by pressing **F8**. On the Windows default terminal emulator, **F8** is **<Esc>8**. Press **8** within two seconds after pressing **Esc**. Otherwise, the system will register only **Esc** and reboot.

Step 4. Enter the product key. The product key is located on the label attached to the server.

Step 5. Enter the administrator password and re-enter to confirm.

The mini-setup process continues automatically and after completion, reboots the system. Wait for the **SAC>** prompt to reappear.

Step 6. Enter **i** to get the IP address of your server.

Step 7. Open a terminal server client and connect to your server's IP address. Change the computer name and IP address, if needed.

Step 8. On the desktop, open the OnlineReference page, scroll to the bottom, and click on the link to **c:\hputils\usercompanyname.com**. This link is available when using HP Reinstallation media only.

Step 9. When prompted, enter company and user name, and click **OK** to complete setup.

Technical documentation

Technical documentation for HP Integrity servers running Windows Server 2003 includes the following manuals in English and Japanese. These manuals are available on the HP Smart Setup media and from the HP Integrity support Web site at <http://www.hp.com/support/itaniumservers/>.

Smart Setup Guide

provides instructions for installing, re-installing, or migrating to Windows Server 2003 on HP Integrity servers.

nPartition Guide

provides instructions for creating, configuring, and managing nPartitions on cell-based HP Integrity servers running Windows Server 2003.

Kernel Debug Guide

provides instructions for setting up and running the Windows operating system kernel debugging environment, and provides tips and tricks for troubleshooting the OS.

Support Pack and Deployment Utilities User Guide

provides instructions for using the deployment utility and setup tools to perform routine software maintenance tasks in Windows Server 2003 64-bit server environments.

Management Events Reference

contains a list of the Microsoft Windows Server 2003 and Microsoft Windows Server 2000 Event Log messages associated with SNMP traps, which are generated by the HP Management Agents for Servers for Windows.

Management Agents Guide

provides instructions for installing, configuring, and using HP Insight Management Agents on HP Integrity servers running Windows Server 2003.

Pay Per Use User Guide

provides instructions for installing, configuring, and using HP Pay Per Use (PPU) software on HP Integrity servers running Windows Server 2003.

Technical support

To keep your server up to date with the latest firmware, drivers, and utilities, visit the HP technical support web site periodically.

Get Windows-specific firmware, drivers, and utilities

To obtain Superdome firmware, drivers, and utilities applicable to Windows Server 2003:

- Step 1.** Go to <http://www.hp.com/>.
- Step 2.** Click **Driver Downloads**.
- Step 3.** On the Software & Driver Downloads page, select **Download drivers and software** and type Superdome in the product search field.
- Step 4.** From list of products displayed, select **HP Integrity Superdome**.
- Step 5.** On the **specify operating system - HP Integrity Superdome server** page, select **Microsoft Windows Server 2003 64-bit**.
- Step 6.** On the **download drivers and software for HP Integrity Superdome server- Microsoft Windows Server 2003 64-Bit** web page, download firmware and drivers as required.

NOTE

Only HP CE's are authorized to update the system firmware on HP Integrity Superdome servers. Please contact HP Support for updates to the firmware.

Register for HP support notifications

HP recommends that you register for alerts and notifications to stay informed of updates to the drivers, patches, and other components specific to your server.

Go to <http://www.hp.com/united-states/subscribe/gateway/>